AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q77159

Application No.: 10/663,771

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

**LISTING OF CLAIMS:** 

1. (currently amended): An Interface interface unit comprising:

- a first component for establishing a connection to a radio network controller of a

radio network sub-system by means of a first communication protocol;

- a second component for establishing a connection to a plurality of access points of

a wireless local area network by means of a second communication protocol, wherein each of the

plurality of access points covers a respective physical cell, and a plurality of physical cells

including the respective physical cell constitutes a logical cell;

- a third component for converting the second communication protocol to the first

communication protocol and for converting the first communication protocol to the second

communication protocol; and

- a fourth component for providing data indicative of a load situation of the logical

cell to the radio network controller, wherein the load situation indicates a total load of the

plurality of access points within the logical cell as a fraction of an integrated capacity of the

plurality of physical cells within the logical cell.

2. (currently amended): The interface unit of claim 1, the connection to the radio

network controller being a long distance connection comprising at least one of an Asynchronous

Transfer Mode (ATM)-type connection and an Internet protocol (IP)-type connection.

3. (previously presented): The interface unit of claim 1, the connection to the at least

one access point being a short distance connection comprising an Ethernet-type connection.

4. (previously presented): The interface unit of claim 1 further comprising a fifth

component for balancing the total load of the plurality of the access points.

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5. (previously presented): The interface unit of claim 1 further comprising a sixth component for hand over control of wireless terminals between the plurality of access points.

- 6. (currently amended): A telecommunication system comprising:
- a radio network controller for coupling to a core network and for coupling to one or more Node Bs of a Universal Mobile Telecommunications System (UMTS) network,
  - a wireless local area network having a plurality of access points,
- an interface unit for coupling the plurality of access points to the radio network controller, the interface unit having a component for providing data indicative of a load situation of a logical cell to the radio network controller,

wherein each of the plurality of access points covers a respective physical cell, and a plurality of physical cells including the respective physical cell constitutes the logical cell, and

wherein the load situation indicates a total load of the plurality of access points within the logical cell as a fraction of an integrated capacity of the plurality of physical cells within the logical cell.

- 7. (previously presented): The telecommunication system of claim 6 further comprising a component for balancing the total load of the plurality of access points, the component for load balancing being comprised in the interface unit.
- 8. (previously presented): The telecommunication system of claim 6 further comprising a component for hand over control of wireless terminals between the plurality of access points.
- 9. (original): The telecommunication system of claim 8, the component for hand over control being comprised in the radio network controller.
  - 10. (currently amended): A telecommunication method comprising:

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- providing of a <u>third Generation Partnership Project/ Universal Mobile</u>

<u>Telecommunications System (</u>3GPP/UMTS)-type system having one or more radio network controllers,

- providing of a wireless local area network-type system having a plurality of access points,
- coupling of the wireless local area network-type system to the 3GPP UMTS-type system by interconnecting the at least one radio network controller and the plurality of access points by means of the interface unit as claimed in claim 1.
- 11. (new): The interface unit of claim 1, wherein the radio network controller controls hand over between the logical cells, and the radio network controller does not control hand over between the plurality of physical cells.
- 12. (new): The telecommunication system of claim 6, wherein the radio network controller controls hand over between the logical cells, and the radio network controller does not control hand over between the plurality of physical cells.
- 13. (new): The telecommunication method of claim 10, wherein the radio network controller controls hand over between the logical cells, and the radio network controller does not control hand over between the plurality of physical cells.
  - 14. (new): An interface unit comprising:
- a first component for establishing a first connection to a radio network controller (RNC) of a radio network sub-system by means of a first communication protocol used in a first network, the first connection being established not by way of any node served in the first network and coupled to the RNC;
- a second component for establishing a second connection to a plurality of access points of a wireless local area network by means of a second communication protocol used in a

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second network, wherein each of the plurality of access points covers a respective physical cell, and a plurality of physical cells including the respective physical cell constitutes a logical cell;

- a third component for converting the second communication protocol to the first communication protocol and for converting the first communication protocol to the second communication protocol; and
- a fourth component for providing data indicative of a load situation of the logical cell to the radio network controller.
  - 15. (new): The interface unit of claim 14,

wherein the first network is a Universal Mobile Telecommunications System (UMTS) network and the second network is a wireless local area network (WLAN), and

wherein the any node coupled to the RNC is a Node B to which mobile terminals located in the UMTS network are coupled.

16. (new): The interface unit of claim 15, wherein the first and the second connections are an Asynchronous Transfer Mode (ATM) or an Internet Protocol (IP) connection.

## 17. (new): A telecommunication method comprising:

- providing of a third Generation Partnership Project/ Universal Mobile

  Telecommunications System (3GPP/UMTS)-type system having one or more radio network controllers,
- providing of a wireless local area network-type system having a plurality of access points,
- coupling of the wireless local area network-type system to the 3GPP UMTS-type system by interconnecting the at least one radio network controller and the plurality of access points by means of the interface unit as claimed in claim 14.
  - 18. (new): A telecommunication system comprising:

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- a radio network controller (RNC) for coupling to a core network and for coupling to one or more Node Bs coupled to mobile terminals located in a Universal Mobile Telecommunications System (UMTS) network using a first communication protocol,

- a wireless local area network (WLAN) having a plurality of access points coupled to an interface unit using a second communication protocol,
- the interface unit for coupling the plurality of access points directly to the RNC not by way of any node served in the first network and coupled to the RNC, the interface unit having a component for providing data indicative of a load situation of a logical cell to the radio network controller,

wherein each of the plurality of access points covers a respective physical cell, and a plurality of physical cells including the respective physical cell constitutes the logical cell.

19. (new): The telecommunication system of claim 18, wherein the any node coupled to the RNC is a Node B to which mobile terminals located in the UMTS network are coupled.

20. (new): The telecommunication system of claim 19, wherein the first and the second connections are an Asynchronous Transfer Mode (ATM) or an Internet Protocol (IP) connection.